# UNCLASSIFIED

# AD NUMBER AD824716 NEW LIMITATION CHANGE TO Approved for public release, distribution unlimited **FROM** Distribution authorized to U.S. Gov't. agencies and their contractors; Critical Technology; APR 1967. Other requests shall be referred to Assistant Chief of Staff for Force Development [Army], Washington, DC 20310. **AUTHORITY** Adjutant General's Office [Army] ltr dtd 29 Apr 1980

THIS REPORT HAS BEEN DELIMITED AND CLEARED FOR PUBLIC RELEASE UNDER DOD DIRECTIVE 5200.20 AND NO RESTRICTIONS ARE IMPOSED UPON ITS USE AND DISCLOSURE.

DISTRIBUTION STATEMENT A

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

Fileci



# FOR OFFICIAL USE ONLY

#### DEPARTMENT OF THE ARMY

OFFICE OF THE ADJUTANT GENERAL WASHINGTON, D.C. 20310

AGAM-P (M) (5 Oct 67) FOR OT RD 670312

12 October 1967

Operational Report - Lessons Learned, Headquarters,

937th Engineer Group (Combat)

TO:

SEE DISTRIBUTION

- 1. Subject report is forwarded for review and evaluation by USACDC in accordance with paragraph 6f, AR 1-19 and by USCONARC in accordance with paragraph 6c and d, AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.
- 2. Information contained in this report is provided to insure appropriate benefits in the future from Lessons Learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

C. A. STANFIEL

Colonel, AGC

Acting The Adjutant General

1 Incl

DISTRIBUTION:

Commanding Generals

US Continental Army Command

US Army Combat Developments Command

Commandants

US Army Command and General Staff College

US Army War College

US Army Air Defense School

US Army Armor School

US Army Artillery and Missile School

US Army Aviation School

US Army Chemical School

US Army Civil Affairs School

US Army Engineer School

US Army Infantry School

US Army Intelligence School

THE MARKING FOR OFFICIAL

USE ONLY IS CANCELED

WHEN SEPARATED FROM

PROTECTED MATERIAL

STATISMENT AR UNCLASSIFIED

(Continued on page 2)

This document is subject to special expert sentrels and each transmittal to foreign governments or foreign matienals may a made only with prior approval of .....

FOR OFFICIAL USE ONLY

# FOR OFFICIAL USE ONLY

DEPARTMENT OF THE ARMY Headquarters, 937th Engineer Group (Combat) APO 96318

EGC-3

30 April 1967

SUBJECT:

Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly

Period Ending 30 April 1967

THRU:

Commanding General 18th Rogineer Brigade

APO 96377

Commanding General

U.S. Army Engineer Command Vietnam (Prov)

ATTIV: AVCC-P&O

APO 96491

Commending General

United States Army, Vietnam

ATTN: AVHGC-DH

APO 96307

Commarder in Chief

United States Army, Pacific

ATTN: GOOP-OT APO 96588

TO:

Assistant Chief of Staff for Force Development

Department of the Army (ACSFOR DA)

Washington, D.C. 20310

Section 1, Significant Unit Activities

1. Command:

DATE OF REMOVAL OF PROTECTIVE MARKINGS CANNOT BE PREDETERMINED

Mission:

To command assigned or attached units.

FOR OTRO FILE

670312

FOR OFFICIAL USE ONLY

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967.

attached to the Group.

To provide all non-divisional engineer support required for tactical operations in the Group area of responsibility. (See Incl 1, 937th Engr Gp (C) Area of Responsibility)

To serve as construction agency for all Army troop labor construction projects to include cantonment, airfield, logistic and line of communication construction in the Group area of responsibility.

To act as focal point of contact for and maintain liaison with Resident Officer in Charge of Construction and to provide a Contracting Officer's Representative on Army Contracts for which responsibility has been assigned to the Group.

#### b. Organization:

To accomplish this mission the following units were assigned or attached to the Group during the reporting period:

•	• • •	
<u>UNI T</u>	TOE	REMARKS
20th Engr Bn (C)	535D	None
70th Engr Bn (C)	5 <b>–</b> 35D	None
299th Engr Bn (C)	5 <b>-</b> 35D	None
815th Engr Bn (Const)	5-116E	Equip. still arriving at end of reporting period
Co D, 35th Engr Bn (C)	5-35E	None
Co B, 84th Engr Bn (Const)	5-118D	None
102d Engr Co (CS)	5-114D	Minus 1 plt atch to 35th Gp
509th Engr Co (PB)	5-77E	Minus 1 plt atch 45th Gp
511th Engr Co (PB)	5-77E	None
584th Engr Co (DT)	5-54D	None
585th Engr Co (DT)	5-124D	None
630th Engr Co (LE)	5-54D	None
Two Plts + 40% of Spt Plt, 554th Engr Co (FB)	h 5-78E	Atch 509th Engr Co (PB)
444th Engr Det (HO)	5-500	None

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967

A chart showing the organizational structure of the Group is attached as Incl 2.

#### c. Command Relationships:

The 937th Engineer Group (Combat) is attached to the 18th Engineer Brigade and has a conventional relationship with its parent unit with the exception that the Group responds directly to First Field Force, Vietnam (IFFORCEV) requests for operational support missions. This arrangement is in accordance with long-standing instructions of the CG, 18th Engr Bde, to insure timely response to operational support requirements of the combat forces in the II Corps Tactical Zone.

# 2. Personnel, Administration, Morale and Discipline:

#### a. Personnel:

The average present for duty strength of the Group during the reporting period ranged between 90 and 111 percent, with an overall average of 101 percent. While the average present for duty strength was higher than the previous quarter, critical MOS shortages remain; i.e., radio operators, tactical communications chiefs, water supply specialists, medical specialists, combat engineer NCO's and equipment operators. The Group received an influx of approximately 700 replacements during the month of March, most of which were basic combat engineers (MVS 12A). The attachment of the 102d Engr Co (CS) to the Group on 10 March and the arrival of the 815th Engr Bn (Const) on 16 April increased the authorized Group strength by approximately 24 percent. On 16 March the Group received notification that the US contractor, a joint venture of Raymond, Morrison, Knudsen, Brown, Root & Jones (RMK-BRJ) would demobilize in Pleiku on 1 April 1967. Special authorization was received by this headquarters to hire local national personnel previously employed by RMK-BRJ to provide a work force to continue projects that were assigned to the Group as a result of the demobilization. (See Incl 3, RMK Demobilization at Pleiku).

- (1) Officers: The present for duty strength of the officers remained between 85 to 89 percent, with an average of 87 percent. The most significant officer shortages are a personnel warrant in Group headquarters and a surgeon in the 299th Engr Bn (C). At the close of the period, the overall present for duty officer strength is 87.3 percent.
- (2) Senior NCO's (E-7,E-8,E-9): The present for duty strength of senior noncommissioned officers ranged from 87 to 93 percent, with an overall average of 90 percent. Except for two (2) E-8 First Sergeants and one (1) E-8 Operations Sergeant, all of the shortages are in the E-7 rank.
- (3) Enlisted Grades (E-1 E-6): The enlisted present for duty strength ranged from 91 to 112.5 percent, with an overall average of 101.7 percent. Crticial shortages are radio operators, tactical communications chiefs,

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967.

water supply specialists, medical specialists and equipment operators.

#### b. Morale and Discipline:

Morale continued to run high in all units throughout the reporting period. The high state of morale can be attributed to competent leadership at all levels of command and effective orientation and information programs which instill in the individual soldier a strong feeling for the importance of his task.

Although the continuing heavy engineer workload necessitates a 7 day work week, thereby minimizing off-duty time, recreation and welfare programs have received considerable command attention. All units in base camps show movies on a regular basis, with the average being five nights per week. Post Exchange facilities continue to improve, and their increasing inventories offer a good selection of basic necessities and luxury items to the troops. Post Exchange facilities are available in all unit base camps. Unit EM, NCO and Officer Clubs, while generally operating in rudimentary facilities, provide popular relaxing spots; from time to time profits are used to obtain outside entertainment, i.e., professional groups booked through Special Services. Several Group clubs have received items of furniture from Special Services, enhancing the club atmosphere, Also during this report period, personnel departing on out-of-country R & R for the most part outprocessed through Cam Ranh Bay, where transportation was more readily available than at Da Nang, which was the major R & R out-processing center for Group personnel during the last reporting period.

Unit Chaplains conduct religious services and character guidance classes on a regularly scheduled basis. Additionally, they spend many hours in individual counseling sessions and in hospitals visiting sick and wounded men of the units.

#### 3. Intelligence and Counterintelligences

#### a. Safeguarding Defense Information:

Continued emphasis was placed on the employment of proper procedures for handling classified documents. All newly assigned personnel and those departing on R & R received a briefing on the contents of pertinent security regulations and the Subversion and Espionage Directed Against U.S. Army (SAEDA) program.

#### b. Physical Security:

Continual improvements were made on all unit defensive positions to include construction of additional personnel protective bunkers and fighting bunkers. Alert plans were rehearsed at regular intervals. The 20th Engr Bn (C) and the 70th Engr Bn (C) participated fully with the 4th Inf Div at Dragon Mountain (south of Pleiku) and with the 1st Cav Div (AM) at An Khe, respectively,

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967.

in all aspects of base camp security. The remainder of the Group units, all located on the northern edge of the Pleiku perimeter, maintained continuous coordination with adjacent units in connection with the overall Pleiku Defense Plan. Security for Group units operating in the field on operational support missions was provided by special arrangement in accordance with IFFORCEV guidance in each instance. In most cases during the period, this security was provided either by the 4th Inf Div or by CIDG/SF units in the vicinity.

#### c. Reconnaissance:

Continued enemy activity within the Group area of responsibility limited the amount of route reconnaissance that could be performed. A limited reconnaissance of Route 7B (Phu Tuc - Jct QL-14) was conducted by Co B, 20th Engr Bn (C) during its withdrawal from Phu Tuc. Route 19 (An Kha Pass - Pleiku) was patrolled on a daily basis by reconnaissance teams from the 70th and 299th Engr Bns in their respective sectors of responsibility. A program was established to perform regularly scheduled inspections of all operational forward area airfields in the Group area of responsibility.

THE PROPERTY OF THE PROPERTY O

## d. Intelligence:

Daily intelligence summaries (INTSUMS) were received from all major tactical units within the Group area of responsibility. Receipt of these INTSUMS, in addition to regular contacts with intelligence gathering units located in the Pleiku area, provided current information on enemy activities in the Group area.

#### 4. Plans, Operations and Training:

#### a. General:

The most significant changes in the operational capabilities of the 937th Engineer Group (Combat) were the addition of two new units and the takeover of the RMK equipment, construction plant, and material stocks upon their demobilization at Pleiku on 1 April 1967.

The 102d Engr Co (CS), less its asphalt platoon, relocated from Cam Ranh Bay to Pleiku and was attached to the 937th Engr Gp (C) on 10 March. The arrival of this unit provided the Group with a significant increase in trained quarry, crusher and related maintenance personnel. The unit's initial missions were:

- (a) To begin development of a new quarry site in the Pleiku area.
- (b) To assume responsibility for crusher operations within Pleiku.

On 16 April 1967 the main body of the 815th Engineer Battalion (Construction) arrived in country from Fort Belvoir, Virginia. All unit equip-

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967

ment had not been off-loaded and delivered to the battalion's new home at Pleiku by the close of this reporting period, but the unit initiated operations, assumed attachment of the 102d Engr Co (CS) (-) and the operation of the RMK fixed construction plant (which was being operated by the 102d Engr Co), in addition to undertaking the further development on the new Connell Quarry site at Pleiku.

The RMK operations in Pleiku were terminated on 1 April 1967 and the 937th Engr Gp (C) assumed responsibility for all Army projects in the Pleiku area that had formerly been contracted to RMK. Included with the turnover of projects were several major items of construction equipment not usually associated with a combat engineer group. The Group obtained such major items of equipment as an hot-mix asphalt batch plant, asphalt paving train, and concrete batch plant and transit-mix trucks, which significantly enhanced the construction capabilities of the Group. A detailed report on the takeover of RMK construction equipment, industrial facilities and workload at Pleiku is attached as Inclosure 3 to this report.

The division of available resources between construction tasks as opposed to operational support, line of communications work and other related missions changed from the 50-50 breakdown obtained at the end of the provious ORLL reporting period. The commitment of one additional line company to the 4th Infantry Division's Dragon Mountain Base Camp cantonment construction, initiation of construction on a continuous concrete C-130 airfield at An Khe, assumption of construction projects being performed by RMK prior to their demobilization and increased emphasis on POL and ammunition storage facilities at An Khe and Pleiku resulted in approximately 60 percent of the Group resources being utilized in support of construction projects, an increase of 10 percent since the end of the last reporting period.

The Group's operational capability continued to be hampered due to inadequate back-up maintenance support and the shortage of spare parts for major items of engineer equipment. Low priority projects in particular suffered to varying degrees because of the commitment of the limited operational equipment to the higher priority projects. Further details on the Group deadline rate and maintenance posture are given in the logistics section of this report.

Weather during the period was generally excellent for construction throughout the Group area as the Highland region experienced its very pronounced dry season. Almost no rain feel during the period until the latter part of April when the buildup of increasingly frequent afternoon thunderstorms heralded the approach of the southwest monsoon season. Dust was a problem on earthmoving projects and necessitated the construction of a large number of expedient water distributors to obtain moisture contents at a level necessary to achieve proper compaction. This was particularly a problem in the Pleiku area where the topsoil is a silt produced by weathered volcanic ash. This soil is extremely sensitive to changes in moisture content and is difficult to work when dry and impossible to work when saturated.

EGC-3 SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967

Dust control operations begun in the last period continued unabated with helicopter operating areas, sirfield facilities, and other critical areas consuming 359,826 gallons of peneprime, 14,635 gallons of asphalt cutback, 1,243,000 gallons of water and 180,000 square feet of T-17 Membrane.

#### b. Operational Support:

On 1 February 1967, the beginning of this reporting period, several missions were in progress that had been initiated in the previous period.

## (1) Operation SAM HOUSTON

The 937th Engr Gp (C) continued to provide general support to the 4th Inf Div's Operation SAM HOUSTON (renamed Operation FRANCIS MARION on 6 April 1967) in western Pleiku and Kontum Provinces. Elements of Co C, 20th Engr Bn (C) continued construction of Route 509B west of the Se San River. The unit cleared a 100 x 200 meter area for a Fire Suprort Base in the dense jungle at the terminus of this, the first road ever constructed into the Plei Trap area. C/20 (-) remained in the Flei Trap area until 6 February, when a shift in tactical requirements necessitated withdrawal of 4th Inf Div units providing work party security. C/20 element returned to the Dragon Mountain Base Camp on 7 February 1967. The 509th Engr Co (PB) continued maintenance of the 410 ft M4T6 float bridge installed across the Krong Poke River west of Kontum City. The bridge, which was installed on 29 January (reported in last ORLL) was used during April 1967 to support a battalionsized search and destroy operation in the vicinity of Polei Kleng CIDG/SF Camp. The 299th Engr Bn (C) performed repairs and maintenance on the T-17 Membrane airfield at Polei Kleng during this same operation.

#### (2) Phu Tuc Airfield

co B, 20th Engr Bn (C) completed the earthwork and subgrade preparation on the parking apron and runway for the all-weather C-130 airfield adjacent to the CIDG/SF Camp at Phu Tuc and began laying T-17 membrane on 21 February 1967. The runway, parking apron and turnarounds were completed on 10 March 1967. Work continued on the 5300 ft access road between the airfield complex and Route 7B and the construction of a Forward Area Support Heliport (FASH) for three airmobile companies. All work was completed on 12 March 1967. The unit departed Phu Tuc on 13 March 1967 and closed Dragon Mountain Base Camp, after convoying a distance of 143 kilometers thru enemy infested territory, on 14 March 1967.

#### (3) Oasis Airfield

Co D, 35th Engr Bn (C) continued work on the upgrading of the existing T-17 membrane airfield at Oasis. The T-17 was removed and the runway lengthened to 3500 ft. The highly dust-susceptible soil at Oasis made compaction of the runway subgrade very difficult, causing progress on

EGC=3
SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly
Period Ending 30 April 1967

the airfield to be much slower than had been initially estimated. After the subgrade was shaped, a 6" compacted lift of select material was placed as a combination cap and base course. With extensive compaction and moisture control effort a subgrade in-place CBR of 18+was obtained.

In an effort to preclude pumping type failures which had been experienced at other dirt airstrips with expedient matting surfaces under conditions of heavy use during the monsoon season, the prepared subgrade was treated with asphalt cutback over which vinylon cloth, a strong, burlap-like, synthetic fibre material was placed and saturated with a second coating of asphalt. This formed a waterproof skin of considerable strength over which the matting could be emplaced with a high degree of expectancy of trouble-free use during the monsoon season. The runway and parking apron access ramps were covered with MX-19 matting by 30 April 1967. The 150 ft x 750 ft parking apron subjected had been brought to final grade and M8A1 surfacing was scheduled for completion o/a 10 May. In addition to the airfield, the unit constructed a T-17 membrane (with separate M8A1 landing pads) FASH area for 40 helicopters, and four all-weather gun pads for 175 mm and 8 inch self-propelled artillery pieces operating at the Oasis. A .ew all-weather access road including a Class 55 timber stringer bridge was constructed between the airfield complex and Route 19W.

#### (4) Operation DUCHESS - Duc Lap Airfield

Co C, 20th Engr Bn (C) initiated construction of a new C-130 airfield adjacent to the CIDG/SF Camp at Duc Lap on 4 February 1967. A 3500 ft T-17 airfield, with parking apron for five C-130 aircraft was completed on 6 April 1967. In addition to the airfield, a 3 kilometer access road was constructed between the airfield and Route 14. This operation required detailed advance planning both from an operations and a logistics standpoint. The 200 kilometer distance from resupply depots to the airfield made resupply over land line of communications impractical and the initial convoy to the work site consisted of approximately 100 vehicles, carrying all materials, POL and rations required to sustain a 45-day operation. The airfield was capable of handling C7A traffic after 20 days of construction and aerial resupply flights were flown on a regularly scheduled basis thereafter.

In the construction of this airfield a high-strength, select fill car consisting of granular weathered basalt was employed. Over this a region layer of finer grained material was placed to protect the T-17 membrane from being punctured by the granular base. Great emphasis was placed on proper compaction and quality control with the result that the Duc Lap airfield is considered an exceptionally strong strip and one which should be able to sustain considerable C-130 traffic throughout the rainy season.

#### (5) Fhu Nhon Airfield

On 15 February 1967 Fhu Nhon Airfield was closed to traffic excessive water in the subgrade had caused extensive rutting of the

EGC-3 SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967

runway surface. A platoon from Co C, 20th Engr Bn (C) moved to Phu Nhon on 18 February 1967 and completed emergency repairs on 24 February 1967. On 7 March the unit returned to Phu Nhon to perform further deliberate rehabilitation to restore the strip to its original condition. The T-17 membrane surface was peeled back in several places and the wet subgrade removed and replaced with well-compacted select fill. The membrane was patched and the airfield was reopened to C-130 traffic on 22 March 1967.

#### c. Construction:

The Group continued its diverse and comprehensive troop construction program with an ever-increasing percentage of total group effort being applied in this direction. Requirements for construction continued to mount as did the requirement for increasingly sophisticated designs and construction techniques.

The takeover of the RMK-BRJ contractor assets on 1 April, while adding considerably to the Group's capability, similarly added greatly to the construction workload. The sophisticated nature of the construction projects taken over from RMK required a "talent search" to replace the experienced contractor supervisors and necessitated the organization, staffing, and training of special teams to continue to prosecute the work efficiently. This approach has proven to be quite successful.

In line with the increasing sophistication of Group projects has come an increased requirement for better quality control and job management. Positive steps have been taken to improve both. An outstanding example is the An Khe Airfield project. The decision had been made to emplace a concrete runway at An Khe. The special problems associated with the soils and high water table at An Khe necessitated both a careful design based on thorough engineering investigations and close control of construction.

This project is being managed similar to contract construction. The responsibility for design and architectural engineering services was retained at the Group level and only construction responsibility assigned to the 70th Engr Bn (C). A construction agency-contractor relationship was established and a "Resident Engineer" responsible to the Group S-3 was designated. The Resident Engineer was provided with a staff of inspectors, surveyors, and technicians and furnished with necessary testing equipment and publications. A definitive set of specifications was published (Incl 4 - An Khe Army Airfield Specifications). The organization of the quality control team is shown as Inclosure 5.

With the organization and relationship thus established the Group Commander functions both as the head of the construction agency and as the "President" of the contracting corporation, responsible for making assets of the Group available to the "contractor" to enable him to efficiently prosecute the work. To date this arrangement has proven highly effective. The Resident Engineer has identified and solved several "hidden" problems which

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967

could have resulted in serious construction defeciencies. Among these were pockets of highly compressible clay at a number of locations along the runway and defective cement which failed to develop proper 28-day strengths. It is possible that both of these might have been overlooked with a less comprehensive quality control and design investigation program.

Throughout the Group work continued on many major projects carried over from previous periods. With 60% of the Group effort now devoted to construction and with the increased capability afforded by the takeover of RMK assets, the transfer of the 102d Engr Co (CS) (-) to the Group, and the arrival of the 815th Engr Bn (Const), the rate of progress on these projects is steadily increasing. During this period 60 construction projects were actively prosecuted and 739,668 man-hours were expended on them. The construction has encompassed most classes of facilities other than ports. Cantonment construction has covered major installations such as An Khe and Dragon Mountain, home bases for the 1st Cav Div (AM) and 4th Inf Div, respectively, on down to a company-sized signal unit at Kontum. By the end of this period the transition from tents to hutments passed the halfway mark in all areas.

Logistical facilities continued to receive considerable construction effort. At An Khe the 65,000 BBL tank farm has progressed on schedule. Incremental BOD's (beneficial occupancy dates) have been established to allow use of each tank for storage as they are complete, and at present three different products are being stored in seven tanks.

The An Khe Logistical complex, including facilities for maintenance, administration and storage of all classes of supply, progressed rapidly with vertical construction nearly completed.

Design work is complete on the An Khe - Fleiku pipeline and the Fleiku 50 MBBI tank farm complex and work is expected to commence early in the next reporting period.

Logistics facilities construction in Pleiku has continued to absorb most of the earthmoving-capabilities of the 299th Engr Bn (C) and vertical construction has proceeded as rapidly as the supply of materials allowed.

Communications facilities continue to receive a high priority and IWCS sites at An Khe and Pleiku are nearing completion. Completion of the liku Comm Center is dependent on the arrival of a large air-conditioning plant.

Medical facilities are also high on the priority list and construction is progressing well on the 400-bed 71st Evacuation Hospital in Pleiku, a project taken over from RMK. Again, material shortages are seen as the only bar to rapid completion.

Airfield construction has ranged from the previously mentioned An Khe Airfield to construction of a lighted helipad for the 18th Surgical Hosp (MA) in Pleiku. This latter facility designed and constructed in less than a week offers a single solution to a safety problem and the design

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967

has been adopted as the Group standard. A memorandum for record on construction of the facility is attached as Inclosure 6.

#### d. LOC Upgrading and Maintenance:

In addition to the previously described construction projects, Group units expended considerable effort on upgrading and maintaining various highways and roads. National Route 19, the MSR from Qui Nhon to An Khe and Fleiku, required maintenance effort from both the 70th and 299th Engr Bns.

The 70th Engr Bn (C) worked on the section between the An Khe Pass and the Mang Giang Pass. Substantial effort was expended improving the road's drainage system and repairing many potholes with cold-mix. A requirement for the movement of deadlined tanks from the 4th Inf Div Base Camp at Dragon Mountain to Qui Nhon necessitated upgrading Route 19 to Class 78 capability. Accordingly, in addition to continuing road maintenance, the 70th Engr Bn (C) constructed nine Class 78 fair weather bypasses around low-class bridges along their section of the route.

The 299t! Engr Bn (C) continued maintenance and repairs on Route 19 between the Mang Giang Pass and Fleiku. One Class 78 bypass was constructed and an existing triple-single panel bridge located approximately 30 km east of Fleiku was removed and replaced with a double-double structure to upgrade the stretch between the Mang Giang Pass and Fleiku to Class 78 fair-weather capacity. At 0930 hours, 16 April 1967 word was received that this same double-double panel bridge had been heavily damaged by an enemy satchel charge during the early morning hours. A reconnaissance was conducted at the bridge site, and the 299th Engr Bn (C), supposted by the 509th Engr Co (FB), was assigned the mission of removing the bridge, replacing the damaged components and reopening Route 19 to Class 78 traffic. Response was quick and, by 2245 hours the same day, the damage had been repaired, the bridge relaunched and Route 19 reopened to Class 78 traffic.

With the approaching monsoons, increased emphasis was being placed on Route 19W from Dragon Mountain to Duc Co and Route 14B-509 between the intersection of Route 19W and New Flei Djereng. These roads provided the only land lines of communication to the western sector of the 4th Inf Div's area of responsibility, necessitating their upgrading to all-weather trafficability to enable the 4th Inf Div to continue surveillance of the Cambodian border and conduct mactical operations within the area. The 20th Engr Bn (C) completed 30 kilometers of the 75 kilometers of roads contained in this maneuver net by the end of this reporting period and will complete upgrading of the remaining 45 kilometers to Class 55 limited all-weather capability before 1 June 1967. As other operational support missions undertaken by the 20th Engr Bn (C) have been completed equipment and troops have been increasingly fed into this road rehabilitation effort. The companies from the Phu Tuc, Duc Lap, and Phu Nhon missions were committed at the end of the period and the company at Oasis was to be added shortly.

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967

Additionally, the 20th Engr Bn (C) continued replacement of tactical bridging on Route 509 between Fleiku and New Flei Djereng. An 80-ft timber stringer, Class 55 one-way, Class 35 two-way bridge was constructed to replace an AVLB approximately 22 km west of Fleiku. The requirement to upgrade Route 509 to all-weather capability prior to the 1967 monsoon season was deferred but limited effort was expended on this route throughout the reporting period to allow convey passage during dry weather.

# e. Contract Liaison and Installation Master Flanning (CLIMPO)

Contract liaison activity peaked in late March with the phase out of RMK-BRJ in the Fleiku area on 1 April. Extensive liaison was necessary to gather all detailed information available on contract jobs in progress and to plan the orderly take over of these jobs by troop supervisors, minimizing the delays that would have otherwise resulted. By the middle of April the changeover was complete and RMK had departed the Fleiku area (See Incl 3).

In An Khe two projects continue to be worked under contract. These are the runway lighting for the An Khe Airfield and the Camp Radcliffe cantenment central power distribution system. Both projects are progressing and close contact is being maintained. Some material problems have been encountered and a great deal of assistance has been provided toward resolution of these problems by the Electrical Power Branch, A/COS Engineering, USAECV(P). It is anticipated that RMK will phase out of An Khe on 1 July, leaving these projects for completion by the 937th Engr Gp (C).

Installation master planning assistance has continued to all major units in the Group area. Emphasis has been placed on updating all plans as of 1 May for submission by 1 June 67.

#### f. Training:

Despite the ever-increasing engineer work load, Group units continued to conduct mandatory unit and individual training. Special emphasis was placed on transition training and orientation for individual replacements arriving in Vietnam and on individual and crew-served weapons firing for both familiarization and qualification.

#### g. Aviation:

The Group Aviation Flatoon continued its mission of resupply, command transport, reconnaissance and liaison. During April, the three assigned UH-1B helicopters were turned in and two UH-1D helicopters issued. The greater payload of the UH-1D enabled the platoon to fulfill the same mission requirements in spite of the reduced number of aircraft (50% more space and capacity). Homing devices and new-series radios enable the aircraft to communicate with and locate any ground station which greatly improved Air-ground liaison.

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Feriod Ending 30 April 1967

## 5. Logistics

#### a. Supply:

- (1) Critical items of equipment were frequently in short supply during the period. 40 of 571 authorized items (7.4%) were short at the beginning of the period. The addition to the group of the 102d Engineer Company (Construction Support) in March increased the authorized number of critical items to 601; however, the heavy utilization of equipment in addition to several combat losses increased the shortage to 60 items or 10% by 23 Apr 67. The arrival of the 815th Engr Bn (Const) in April produced the greatest impact on critical item status, adding 178 critical items for a Group total of 779 items at the close of this period. The new Battalion's shortages on arrival increased the total group shortages to 75 items, or 9.6% of authorized. Very recent developments indicate a substantial reduction of the shortage of critical items may occur with the anticipated arrival of dump trucks, scoop loaders, and 5-ton tractors.
- (2) In general, the Class IV materials status improved slightly during the 3-month period. During February and March projects had to be rescheduled due to recurring shortages of common dimensioned lumber and cement. The situation in April improved to the point where adequate supplies of dimensioned lumber and cement were continuesly available. The supply of electrical wire and fixtures as well as plumbing hardware continues to be critical.
- (3) The Class IV situation in the Fleiku area will continue to be critical in the near future. Factors that will affect the situation are:
- (a) The continued build-up of troop strength in the area, with atterdant requirements for new housing and operating facilities.
  - (b) The upgrading of present facilities to higher standards.
- (c) The additional requirement for LOC maintenance brought on by heavier traffic.
- (d) The marked increase in the Group's capability to emplace construction materials.
- (e) The increased requirements for necessities, e.g. fcod, fuel, and ammo, which will command a larger share of present line haul capability, leaving a smaller share for Class IV construction materials. The prospect of increased transportation capability in the rear future is remote.

#### b. Maintenance:

(1) The Group continued to pursue a vigorous maintenance management program which produced significant results during this period. The equip-

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Feriod Ending 30 April 1967

ment deadline rate declined continually from a high of 36.8% on 28 January 1967 to a low of 19.2% on 29 April 1967. The support rendered by Direct Support Units (DSU) was adversely effected initially by the lack of experience factors. Elimination of delays by units in turning in equipment to DSU's produce a substantial workload on them initially without benefit of experience factors, the DSU's were unable to program sufficient personnel and tools adequately to support the Group's equipment. Increased demands repair parts depleted existing ASL's causing many items of equipment to be held in DSU's for an extended period while awaiting repair parts. The support rendered by the DSU's improved steadily throughout the reporting period.

(2) The supply of repair parts both to organizational level maintenance shops and DSU's has improved, but is still critical. The more aggressive DSU's utilize their Material Readiness Expeditors (MRE's) to great advantage and actively pursue the task of identifying and locating deadline repair parts. In addition, direct coordination with maintenance staffs at 18th Engr Bde and USAECV(P) has been effective in locating repair parts at depots near their respective headquarters. The improving repair parts supply has been the primary factor in the reduction of the Group deadline rate.

#### 6. Force Dvelopment:

No significant activities.

#### 7. Command Management:

Activities covered in sections 1 thru 5.

### 8. <u>Inspector General</u>:

Twelve complaints on requests for assistance were processed during the reporting period. Most pertained to assignments or reassignments and promotions.

#### 9. <u>Information</u>:

The Gommand Information Topics furnished by Hq, USARV, are being utilized in all units of the 937th Engineer Group (Combat). The unit's rientation of new arrivals and the unit's information programs are considered adequate to disseminate information of interest to all personnel. During the report period 1636 hometown news releases and 34 news articles were released. More emphasis is being placed on the writing and submission of news articles.

#### 10. Civic Affairs:

Group Civic Affairs activities during the reporting period were retered primarily in the An Khe area, where the 70th Engr Bn (C) assisted the construction of a local school for the World-wide Evangelical Church.

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 30 April 1967

Medical personnel from all Group units made frequent visits to villages surrounding base camp areas to provide sick call facilities for the Vietnamese people. 509th Engr Co (PB) personnel who were maintaining the float bridge west of Kontum provided first aid treatment for the population of Poler Krong Village.

## Section 2, Part I, Observations (Lessons Learned).

1. Aviation:

1 TEM: Aircraft Armament.

DISCUSSION: Operating in density altitudes in excess of 5000 ft, the Aviation I latoon was constantly faced with marginal lift conditions in order to carry any significant load. When the change was made from UH-1B to UH-1D helicopters, it was decided that only light armament would be mounted in order to save weight. The armament kits (M23) for the UH-1D weigh 230 lbs loaded. During the previous eight months, ground fire was received on only one occasion and the aircraft was unable to return suppressive fire. It is felt that the type missions flown by Engineer Aircraft do not justify the reduction in airspeed and payload caused by the armement kits. The concept of returning fire rapidly to enable the pilot to take evasive action can be accomplished through use of the M-16 rifle secured by its sling to the seat. To provide extra firepower in the event of a downed aircraft, an M-79 grenade launcher is carried on all flights.

Braucher

E. P. BRAUCHER

Colonel, CE Commanding

OBSERVATION: M23 Armament kits are not required on aircraft assigned to Engineer units.

#### Section 2, Part II, Recommendations

NONE

6 Inclosures

1 - 937th Engr Gp (C) Area of Responsibility

2 - Organization Chart

3 - Ri:K Demobilization at Fleiku

4 - An Khe Army Airfield Specifications

- Quality Control Organization Chart - An Khe Airfield

6 - After Action Report, 18th Surgical Hospital (MA) Helipad

#### DISTRIBUTION:

3 - (1-thru channels) - ACSFOR DA

(2-w/1st Ind) - ACSFCR DA (Airmail) 2 - CINCUSARFAC, ATTN: GPOF-OT (Airmail)

- CG, USARV, ATTN: AVHGC-DH (Courier)
- CG, USAECV(P), ATTN: AVCC-P&O (Courier)
- CG, 18th Engr Bde, ATTN: AVBC-C (Courier)

# FOR OFFICIAL USE ONLY

17

WBC-C (30 April 67) lst Ind Cpt Mills/cky/DBT-163 SUBJECT: Operational Report - Lessons Learned (MCS - CSFOR-65) For the Quarter Ending 30 April 1967

Headquarters, 18th Engineer Brigade, APO UP Forces 96377

7 JUN 1967

To: Commanding General, U.S. Army Ingineer Command, Vietnam (Frov) ATTV: AVCC-PRO. APO US Forces 96491

- 1. This headquarters has reviewed this prooft submitted by the 937th Engineer Group (Combat), and considers it an excellent report of group activities for the quarter ending 30 April 1967, and corcurs with the observations and comments of the Group Commender.
  - 2. The following comments are added:

Page 6, paragraph 4, and page 13, paragraph 5b - Maintenance Support: 1st Logistic 1 Command has stated that they will increase maintenance support capability in the /n Khe - Pleiku rea, and they will commit up to \$2,000,000 to provide additional major assemblies and replacement parts for engineer equipment.

C.F. DUKE

Brighdier General, USA

Comm raing

FOR OFFICIAL USE ONLY

# FOR OFFICIAL USE ONLY

AVCC-P&O (30 Apr 67) 2d 1nd CPT Hubbard/ccb/BH 404 SUBJECT: Operational Report-Lessons Learned (RCS CSF(-65)) for quarterly Period Ending 30 April 1967

HEADENARTERS, UNITED STATES ARMY ENGINEER COME ALS VIRTHAM (FROV), APC 96491

TO: Commanding Ceneral, United States Army, Vietnam, A Th: AVHGC-1H, AFC 96307

- 1. The subject report, submitted by the 937th Ingineer Croup (Cbt), has been reviewed by this headquarters and is considered adequate.
- 2. The comments made by the submittin and Indorsing commander have been reviewed and this headquarters concurs, subject to the following added comment:

Section 2, Part I, paragraph 1, page 15, 17mM: Aircraft Armament. The armament kit (123) is considered necessary as a deterrent and protective measure while flyin, over and into hostile areas.

FOR THE COMMADIR:

RICHARD J. DUCOT:
Colonel, Cr.
Chief of Staff

AVHGC-DST (30 April 67)

3d Ind

SUBJECT: Operational Report-Lessons Learned for the Period Ending 30 April 1967 (RCS CSFOR-65) (U)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APC San Francisco 96375

TO: Commander in Chief, United States Army, Pacific, A'TTN: GPOP-OT, APO 96558

- 1. This headquarters has reviewed the Operational Report-Lessons Learned for the period ending 30 April 1967 from Headquarters, 937th Engineer Group (Combat) as indorsed.
- 2. Pertinent comment follows: Reference item concerning aircraft armament, Section II, part I, page 15 and paragraph 2, 2d Indorsement: Non-concur: Concur in paragraph 2, 2d Indorsement. The reduction in airspeed with the installation of the XM-23 is negligible. The over-riding factor for mounting the XM-23 on UH-1D helicopters in Vietnam is the deterrent to hostile fire which is more likely to be encountered if aircraft are observed by the enemy to be without armament and the retaliatory measures available to the crew when hostile fire is received. Additionally, the XM-23 affords a greater margin of safety against inadvertently firing into the helicopter than has been experienced with the M-16 rifle.

FOR THE COMMANDER

6 Incls

C. E. St. Martin

C. E. GT MARTH Cept. AGC Asst AG GPOP-DT(30 Apr 67)

SUBJECT: Operational Report for the Quarterly Period Ending 30 April 1967 from HQ, 937th Engr Gp (Cbt) (RCS CSFOR-65)

HQ, US ARMY, PACIFIC, APO San Francisco 96558 28 SLP 1967

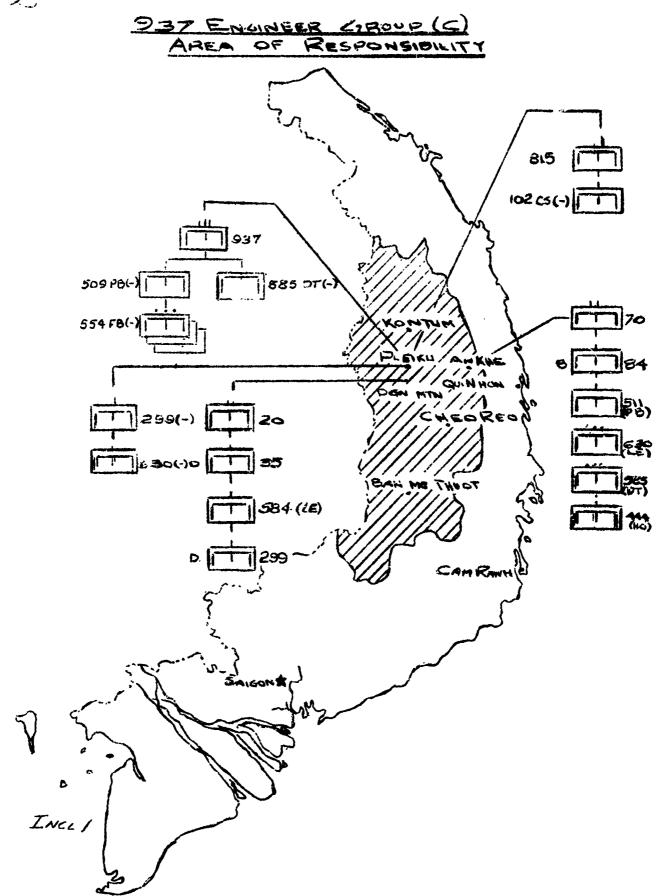
TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters has evaluated subject report and forwarding indorsements and concurs in the report as indorsed.

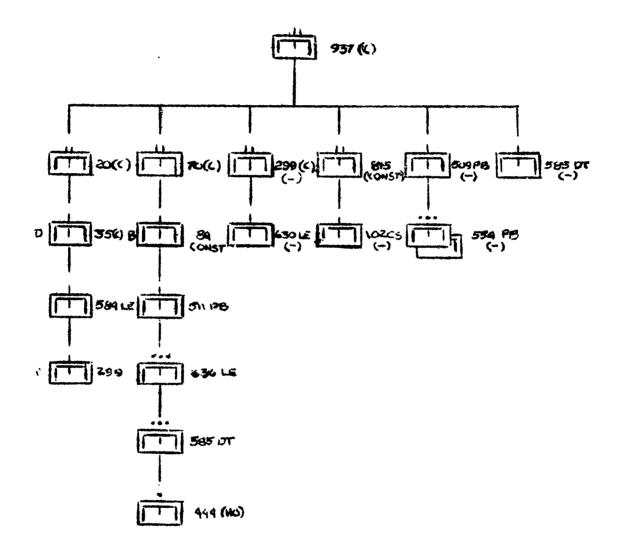
FOR THE COMMANDER IN CHIEF:

G. I. McMULLIN MAJ, AGC Asst AG

6 Incl



# ORGANIZATIONAL CHART, 937 ENGINEER GP(C)



INCL 2